Commentary: University of Michigan 2003 study on student drug testing

In the April 2003 issue of the *Journal of School Health* (Vol. 73, No. 4, pages 159-165), University of Michigan researchers Ryoko Yamaguchi, Ph.D., Lloyd Johnston Ph.D., and Patrick M. O’Malley Ph.D. published a study titled “Relationship Between Student Illicit Drug Use and School Drug-Testing Policies.” These researchers concluded from their study that student drug testing is not effective in deterring student drug use.

After reviewing the published study, the highly-publicized May 17, 2003 *New York Times* front-page article “Study Finds No Sign That Testing Deters Students' Drug Use” as well as the study methodology/design and the University of Michigan’s assertions about student drug testing, there appears to be significant justification to question the credibility of this student drug-testing study.

**Study design, conclusion:**

Upon review of the published study report, it can be seen that the publicized study conclusion is not supported, even by its own research team. The report states that the study was limited by its design, making it impossible to establish a definitive link between student drug testing and the use of illegal drugs by schoolchildren.\(^1\) And yet in spite of that statement, the authors proceed to conclude that the study’s “…results suggest that drug testing in schools may not provide a panacea for reducing student drug use that some (including some on the Supreme Court) had hoped.”\(^2\)

The researchers’ use of the term “panacea” appears to be polemic and is strongly suggestive of a lack of objectivity due to the fact that the term has never been associated with support of student drug testing except by these researchers. Experts on student drug use know that it takes a combination of efforts through drug education, prevention, parental and school involvement, and student assistance programs in partnership with a student drug-testing (SDT) program to reduce drug use by students. Therefore, no one with knowledge and expertise on student drug-testing would consider drug testing a “panacea” for student drug use.

It should also be noted that there appears to be a lack of basic knowledge about drug testing programs in general, and student drug testing in particular. This lack of knowledge may have contributed to flaws in the study design. Researchers mixed distinctly different SDT programs and policies under the single category of school drug testing policies, then proceeded to compare those testing policies to student drug

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\(^1\)Journal of School Health, April 2003, Vol. 73, No. 4, Discussion, page 164 “. . . one cannot make definitive causal interpretations regarding effects of drug testing . . .”

\(^2\)Journal of School Health, April 2003, Vol. 73, No. 4, Discussion, page 164
use rates. In fact, the researchers appear to have included all schools that have policies to drug test students, *whether or not any actual drug testing is done*. This would also include those schools that may have only done a single suspicion/cause test during the school year sampled.

Two of the types of testing most commonly used in student testing policies are discussed below to illustrate that various types of drug testing are not comparable thus leading to a faulty study design which in turn led to an erroneous conclusion.

1. **Reasonable suspicion** drug testing is available to all schools. This type of drug testing is characterized in the study as “cause/suspicion testing” and the study reported less than 15 percent of the student population being subjected to this type of testing. Due to study design, the Michigan study was not able to specifically correlate the numbers of suspicion/cause drug tests to any of their student drug use data. And it should be noted that most schools have the authority to conduct such testing, but rarely do test on this basis.

2. **Random selection (suspicionless)** student drug testing, as allowed under the U. S. Supreme Court’s 1995 *Vernonia* and 2002 *Earls* decisions, is a non-punitive type of drug testing that is available to provide a confidential assessment of a child’s involvement with dangerous drugs. It is usually a pre-cursor to treatment, with a stipulation that the consequences be non-punitive. This type of testing is characterized in the study as “routine drug testing” applicable to less than 5 percent of the student population surveyed. It should be pointed out that there is broad variation in its application to the school population. Some schools only test athletes (typically about 50 percent of the students) and then sometimes only during the active sport season. Some schools test athletes plus students in extracurricular activities (typically about 80 percent of the students). Some schools test athletes, students in extracurricular activities and those students driving and parking on school property. And then a few schools (typically private schools not subject to U. S. or State Constitutional considerations) test 100 percent of the students. This type of drug testing has proven to be quite effective based upon valid studies. *(See studies and surveys cited later in this review.)*

*For a school to be included in the group classified has having a drug-testing policy, it would only need to report that it has a policy, not that it is actively drug-testing students.* Other schools may have reported conducting only one (1) student drug test during an entire school year, which most likely would have been on the basis of suspicion or cause. Such testing does not constitute a carefully-structured student drug testing program that regularly tests as many as 80 percent of its students and should not be compared to such a program in terms of quantifying a reduction in student drug use due to student drug testing. Yet, that is exactly what the Michigan researchers did.

They also left unmentioned the existence of significant support for student drug testing programs from the top levels of government such as the U. S. Congress in passing a SDT provision in the No Child Left Behind Act of 2001 (H.R.1); the White House Office of Drug Control Policy’s promotion of SDT as a major component of its national drug prevention strategy; endorsement of SDT by the U.S. Department of Education and the DEA; the U.S. Department of Justice in its friend-of-the-court briefs supporting SDT before the U. S. Supreme Court in both the Vernonia and Earls cases. The researchers also ignored statements of support for SDT by CASA at Columbia University, and support by national anti-drug coalitions such as CADCA plus support for SDT among many other drug prevention leaders and parents.
Review of assertions made by researchers to reinforce conclusion:

The report states: “Thus, speculation about the effectiveness of the drug-testing policy could not be confirmed.”3 Not surprising given the structure of the study. However, it was noted from a review of the final report that the researchers failed to cite or include data from existing surveys and studies that have documented significantly-reduced student drug use rates when using random selection testing programs. Therefore, by referring to the effectiveness of student drug-testing policies as speculative, contrary to the fact that there exists data readily available and easily reviewed by the Michigan research team, it would appear that the researchers original objective (to determine if there is a relationship between student illicit drug use and SDT policies) could not possibly have been met given the Michigan researchers lack of review and mention of other surveys and studies coupled with the design flaws.

Five recent examples of studies or surveys (available at www.studentdrugtesting.org) which have examined the effectiveness of SDT and showed that student drug-testing reduced student drug use are:

1) the Indiana high school study of 2001 and the follow-up study released in 2003;4
2) the SATURN study;5
3) the DuPont Study for the U.S. Department of Education;6
4) the Hunterdon Central Regional High School studies of 1997, 1999, 2002; and

Researchers Yamaguchi, Johnston and O’Malley further assert: “Much criticism from a legal and moral perspective followed the Supreme Court’s reasoning in these cases”.9 This statement is making reference to the Vernonia and Earls SDT cases. The statement is supported using two source citations. One is an article published almost eight (8) years ago, (Carpenter, LJ. “The Supreme Court’s view on drug testing high school athletes.” Drug Strategies. 1996; February: 13–17) which has been made irrelevant by more recent court rulings, and did not include the Earls case that was decided June 27, 2002.

The second citation offered in support of the above-cited statement could possibly include the Earls Supreme Court decision, but as only the year of publication is designated (“The Legal and Educational Issues Behind Drug Testing in School,” Ann Arbor, Michigan; Institute for Social Research; 2002) it is difficult to determine if this second citation does in fact, include reference to the Earls case. It should be

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3Journal of School Health, April 2003, Vol. 73, No. 4 page 159
4The Effectiveness and Legality of Random Drug Testing Policies. Joseph R. McKinney, J.D., Ed.D., Chair and Professor, Department of Educational Leadership, Ball State University adjunct Professor of Law, Indiana University-Bloomington School of Law. Available at www.studentdrugtesting.org
7The American Drug and Alcohol Survey at the Hunterdon Central Regional High School, Flemington, NJ. A report of the 1997, 1999, & 2002 findings is available at www.studentdrugtesting.org
9Journal of School Health, April 2003, Vol. 73, No. 4 page 159
noted, however, that this second citation offered as authority and support for the premise that there is “much criticism from a legal and moral perspective . . .” was co-authored by R. Yamaguchi—one of this study’s three researchers. Therefore, you have a researcher citing his own statement of conclusion to support his own statement of conclusion.

The Michigan study research team goes on to further assert: “…much controversy continues over the appropriateness of school drug testing.”10 Once again, the researchers offer two citations to support the premise quoted above. However, upon examination of those sources, it is seen that the first citation offered is a single Journal of Law Education article written in 1992 (Hutton, C., “Schools as good parent: symbolism versus substance in drug and alcohol testing of school children,” J. Law Education., 1992:21(1):33-69). At least eleven years have passed so relevancy of this citation should be questioned. There is also the fact that prior to 1992 there had only been two significant court cases (one in 1988 and one in 1989–1991) regarding random testing of students.11

The second citation offered in support of the contention that much controversy continues, is a paper, available on the internet, titled “Suspicionless Drug Testing in Schools,” by William J. Bailey, originally written July 19, 1997 (updated September 18, 2003, after publication of the Michigan study). This paper does not offer source citations and must be considered solely the opinion of its author. In the second paragraph of this 1997 paper, Mr. Bailey makes the following statement: “In the 1990s, few single issues have raised as much controversy as has drug testing.” The author is offering opinion on drug testing in workplaces and schools, not substantiated fact, and is referring to a time period at least six (6) years prior to the Michigan study.

Given that both citations for a statement that could be viewed as inflammatory are 11+ and 6–7 years old respectively, it is noteworthy that the Michigan researchers could not find more current support for their position on the issue.

Yamaguchi, Johnston, and O’Malley further state: “In fact, some legal analysts suggest that a drug-testing program actually may increase the problem of drugs in schools.”12 Again, the two (2) sources cited are over six (6) years old.

One of the sources cited as supporting the premise that legal analysts have suggested that drug testing of students may increase drug use in schools was found not to be a legal analysis, but in fact is a mathematically-based theoretical investigation predicated upon the assumption (by the author) of the certainty of specific compensating behaviors occurring when a student athlete drug-testing program is implemented.13 As the paper was written in 1997, the author did not have the benefit of recent studies (as did the Michigan researchers) that have disproved the most of the significant “compensating behavior” assumed for the mathematical calculations to work. To illustrate, the author assumes athletic participation will be reduced and that those who do not remain in athletics due to the “cost” (i.e. the loss of privacy rights when subject to random drug testing) will then return to the pool of students whose drug use, it is assumed for the sake of the equation, is higher than that of the athletes. The author clearly states that total drug consumption will increase with the introduction of drug testing “if and only if” athlete drug use (before testing is introduced) as a percentage of non-athlete drugs use is less than the percentage reduction

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10Ibid.
12Journal of School Health, April 2003, Vol. 73, No. 4 page 159
in athletic participation (students who quit participation due to the random drug testing program). What has, in reality, been observed by schools that have implemented student drug testing programs that include not only athletes, but students in extra-curricular activities is that there is no significant decline in student participation due to implementation of a drug testing program.\textsuperscript{14,15}

Therefore, the study on student drug testing by researchers Yamaguchi, Johnston and O’Malley should be peer-reviewed thoroughly before the media and others rely upon it as accurate and unbiased research.

Certainly more research is needed to examine the impact of student drug testing programs. This study by Yamaguchi, Johnston and O’Malley is most likely not a study that should be added to the growing literature on the efficacy of student drug testing programs.

\textit{Commentary prepared for the Student Drug Testing Coalition by Elizabeth Edwards, Drug-Free Projects Coalition <dro-edwards@earthlink.net>; David Evans, Esq., President, Drug-Free Schools Coalition, Inc., <drugfreesc@aol.com>; DeForest Rathbone, Chairman, National Institute of Citizen Anti-drug Policy, <dzr@prodigy.net>}

\textsuperscript{14}Preliminary results of the SATURN (Student Athlete Testing Using Random Notification) Study. Linn Goldberg, M.D. et al. Oregon Health and Science University, Portland, Oregon. Reported October 2003, by Dr. Goldberg at the U. S. Department of Education Office of Safe and Drug Free Schools 2003 National Conference, October 28, 2003. Washington, D.C. \textit{Dr. Goldberg actually found an 11\% increase in student participation in athletics after random testing was implemented.}